



MI Flu Focus

Influenza Surveillance Updates

Bureaus of Epidemiology and Laboratories



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Updates of Interest:

- The World Health Organization has [recommended](#) the flu strains to be included in the 2016 Southern Hemisphere flu vaccines.

Influenza Surveillance Report for the Week Ending September 19, 2015

Michigan Disease Surveillance System

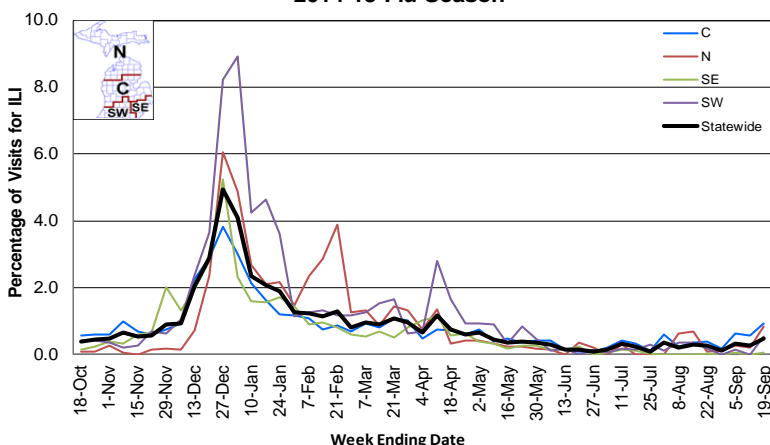
MDSS influenza data indicated that compared to levels from the previous week, aggregate reports increased while individual reports decreased slightly. Aggregate reports are lower, while individual reports are similar to levels seen during the same time period last year.

Emergency Department Surveillance

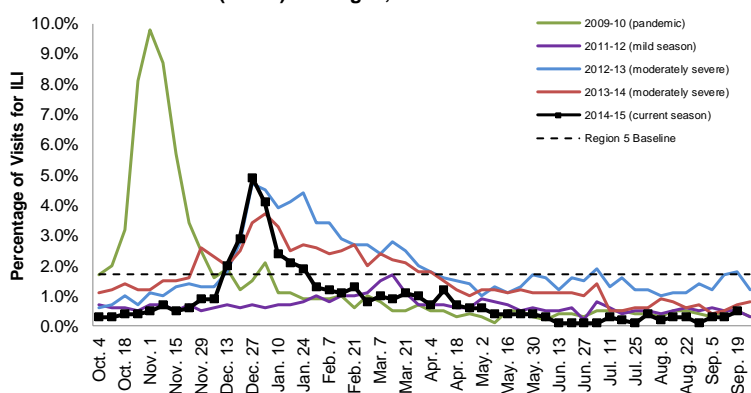
Compared to levels from the week prior, emergency department visits from constitutional complaints were lower, while respiratory complaints were higher. Levels of constitutional and respiratory complaints are both higher than levels seen during the same time period last year.

- 2 constitutional alerts (2C)
- 20 respiratory alerts (2SE, 5SW, 6C, 5N & 2 Statewide)

Percentage of Visits for Influenza-like Illness (ILI)
Reported by Sentinel Providers, Statewide and Regions
2014-15 Flu Season



Percentage of Visits for Influenza-like Illness (ILI) Reported by
the US Outpatient Influenza-like Illness Surveillance Network
(ILINet): Michigan, Select Seasons



Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 0.5% overall; this is below the regional baseline (1.7%). A total of 35 patient visits due to ILI were reported out of 7,229 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (20 total):

- C (6)
- N (3)
- SE (9)
- SW (2)

Become a Sentinel Provider!

As part of pandemic influenza surveillance, CDC and MDHHS highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Stefanie Cole (devitas1@michigan.gov) for more information.

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Hospital Surveillance

The CDC Influenza Hospitalization Surveillance Project provides population-based rates of hospitalization due to severe influenza illness through active surveillance and chart review of lab-confirmed cases, from Oct. 1, 2014 – Apr. 30, 2015, for Clinton, Eaton, Genesee, and Ingham counties. The cumulative total during the reporting period was 88 pediatric hospitalizations (45.6 per 100,000 population) and 374 adult hospitalizations (54.6 per 100,000) within the catchment area.

The MDHHS Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide, and 9 hospitals (C, SE & SW) reported. Results are listed in the table below. Additional hospitals are welcome to join; please contact Seth Eckel at eckels1@michigan.gov.

Age Group	New Flu Hospitalizations Reported	Total 2014-15 Flu Hospitalizations to Date
0-4 years	1	32 (1N, 22C, 4SE, 5SW)
5-17 years	0	33 (28C, 5SE)
18-49 years	0	68 (2N, 12C, 49SE, 5SW)
50-64 years	0	130 (3N, 14C, 99SE, 14SW)
65 years & older	1	530 (20N, 19C, 436SE, 55SW)
Total	2	793 (26N, 95C, 593SE, 79SW)

Laboratory Surveillance

MDHHS Bureau of Laboratories reported 5 new positive influenza results: 3 A/H3 and 2 2009 A/H1N1pdm. A total of 574 positive influenza results have been reported for the 2014-15 season. Influenza results for the 2014-15 season are in the table below.

Respiratory Virus	# Positive Respiratory Virus Results by Region				Total	# Specimens Antigenically Characterized	# Tested for Antiviral Resistance
	C	N	SE	SW			# Resistant / Total # Tested
2009 A/H1N1pdm			2	1	3		
Influenza A/H3	114	34	103	250	501	16* (3 A/Texas/50/2012-like**, 13 A/Switzerland/9715293/2013-like)	0 / 146
Influenza B	20	6	19	23	68	68 (48 B/Yamagata lineage [3* B/Massachusetts/02/2012-like [†] , 9* B/Phuket/3073/2013-like ^{††}], 17 B/Victoria lineage, 3 inconclusive)	
Influenza A, unsubtypeable	1			1	2		

*Specimens antigenically characterized by CDC; **A/Texas/50/2012 (H3N2) virus is the H3N2 component of the 2014-15 Northern Hemisphere flu vaccine, A/Switzerland/9715293/2013-like is an antigenic variant of the current vaccine virus; [†]B/Massachusetts/02/2012 virus is the B/Yamagata component of the 2014-15 Northern Hemisphere trivalent and quadrivalent flu vaccines; ^{††}B/Phuket/3073/2013 virus is the B/Yamagata component of the 2015-16 Northern Hemisphere trivalent and quadrivalent flu vaccines.

In addition, 9 sentinel clinical labs (3SE,2SW,4C) reported influenza results. Two labs (SE) reported sporadic influenza A activity. No labs reported influenza B activity. Three labs (SE,SW) reported sporadic Parainfluenza activity. One lab (SE) reported sporadic RSV activity. Two labs (SW,C) reported sporadic Adenovirus activity. No labs reported hMPV activity. Most testing volumes remain low with a few sites beginning to show increases.

Influenza Congregate Settings Outbreaks

There were 4 new facility outbreaks reported to MDHHS (4 unknown etiology/no testing). There have been a total of 160 respiratory facility outbreaks reported to MDHHS for the 2014-15 season. Respiratory facility outbreaks are listed in the table below by facility type and surveillance region.

Facility Type	C	N	SE	SW	Total
Adult Care Facility		1	2		3
Long-Term Care / Assisted Living Facility	30	12	38	40	120
K-12 School	1		2		3
Daycare				1	1
Unknown / Investigation Pending	16		4	9	29
Healthcare Facility				3	3
Correctional Facility				1	1
Total	47	13	46	54	160

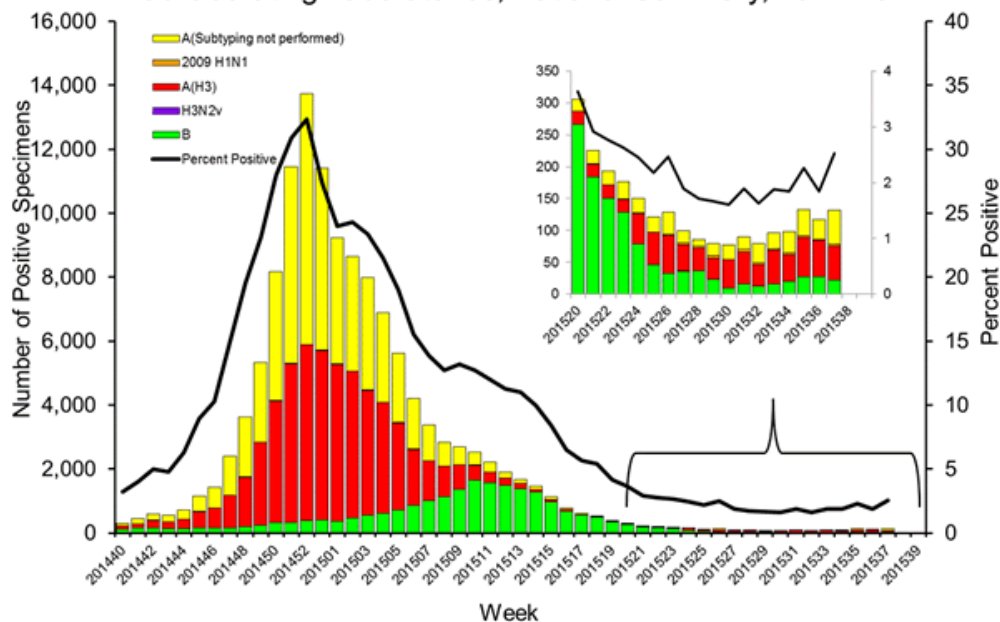
Influenza-associated Pediatric Mortality

No new influenza-associated pediatric deaths were reported to MDHHS. There have been a total of 3 influenza-associated pediatric deaths (1C, 1SE, 1SW) reported to MDHHS for the 2014-15 season.

National: In the United States, 1.0% of outpatient visits were due to influenza-like illness, which is below the national baseline of 2.0%. There have been 146 influenza-associated pediatric deaths reported during the 2014-15 season. Additional information is in the weekly FluView reports available at: www.cdc.gov/flu/weekly/. **NOTE:** Influenza surveillance in the U.S. will continue through the summer months with condensed reports available at www.cdc.gov/flu/weekly/; the full FluView resumes on October 16, 2015. [FluView interactive](#) will be updated over the summer months.

International: Globally, influenza activity continued in the Southern Hemisphere, with overall slightly decreased activity in Oceania, further decreases in temperate South America, and low activity in South Africa. In Australia, flu activity seemed to be past the peak except in South Australia where flu continued to rise with predominantly flu B circulating. Information is available at www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/.

Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2014-15





2016 SOUTHERN HEMISPHERE FLU VACCINES

The World Health Organization has [recommended](#) changes for the 2016 Southern Hemisphere flu vaccines. It was recommended that trivalent vaccines contain:

- an A/California/7/2009 (H1N1)pdm09-like virus;
- an A/Hong Kong/4801/2014 (H3N2)-like virus;
- a B/Brisbane/60/2008-like virus.

Additionally, quadrivalent flu vaccines will contain the above 3 strains plus a B/Phuket/3073/2013-like virus.

2015-16 SEASONAL FLU ACTIVITY

- [Two cases of influenza prompt concern in Gallatin Co., Montana](#)
- [New Mexico Department of Health reports 1st lab-confirmed cases of influenza for this season](#)

AVIAN INFLUENZA NEWS IN NORTH AMERICA

- *Virology Journal*: [Wild bird surveillance for highly pathogenic avian influenza H5 in North America](#)
- [Minnesota DNR launches voluntary duck influenza program](#)
- Any reports of sick or dead birds should be forwarded immediately to the proper agency:
 - For domestic poultry, contact MDARD:
 - M-F 8AM-5PM, 1-800-292-3939
 - After hours/weekends, 517-373-0440
 - For wildlife (die-off of waterfowl, gulls, or shorebirds), contact DNR:
 - M-F 8AM-5PM, 517-336-5030
 - After hours/weekends, 1-800-292-7800

AVIAN INFLUENZA A(H5N1) & A(H7N9) NEWS

- *Emerging Infectious Diseases*: [Avian influenza A\(H7N9\) virus infection in 2 travelers returning from China to Canada, January 2015](#)
- [Addressing avian influenza A\(H7N9\) - guidelines for risk communication messaging](#)
- [Increased number of human cases of influenza virus A\(H5N1\) infection, Egypt, 2014-15](#)
- [H5N1 strikes Nigeria, Vietnam as H5N2 hits South African ostriches again](#)
- [Researchers seeking H7N9 influenza vaccine uncover immune system camouflage](#)

Archived editions of FluBytes are available [here](#) and MI FluFocus archives are [here](#).

COCA CALL TOMORROW ON PEDIATRIC FLU

There is an upcoming COCA call tomorrow, October 1 from 2:00-3:00 (EST) titled "How to Prevent and Control Pediatric Influenza." To join the call, dial 1-888-469-1370, passcode 3791890. To join the webinar, click [here](#). For more information on this call, go [here](#).

MDHHS FALL IMMUNIZATION CONFERENCES

Register now for the MDHHS Fall Regional Immunization Conferences! You can register [here](#). These conferences are geared towards immunization providers and anyone interested in learning more about current immunization practice in Michigan. The following conferences still have open spots available:

- | | |
|---------------------|---------------------|
| -Oct. 13: Marquette | -Nov. 17: Kalamazoo |
| -Oct. 15: Gaylord | -Nov. 19: Dearborn |
| -Nov. 3: Lansing | -Nov. 20: Troy |
| -Nov. 6: Flint | |

INFLUENZA-RELATED JOURNAL ARTICLES

- [Comparative epidemiology of influenza B Yamagata- and Victoria-lineage viruses in households](#)
 - Found that for Victoria-lineage viruses, risk of within-household infection among household contacts ≤ 15 years was significantly higher than for older contacts
 - For Yamagata-lineage viruses, risk of within-household infection for contacts did not differ by age
- [The soft palate is an important site of adaptation for transmissible influenza viruses](#)

OTHER INFLUENZA-RELATED NEWS

- [HHS funds 2 experimental flu treatments](#)
- IAC: [Influenza vaccine products for the 2015-2016 influenza season](#)
- [Flu shot a must for moms-to-be](#)
- CDC: [76.1 million doses of flu vaccine distributed in U.S.](#)

FLU WEBSITES

www.michigan.gov/flu
www.cdc.gov/flu
www.flu.gov
<http://vaccine.healthmap.org/>

For questions or to be added to the distribution list, please contact Stefanie Cole at devitas1@michigan.gov.

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